From: Terry Otterness
Sent: Tuesday, April 25, 2006 11:13 AM
To: Chris Cooper; Urso Penalosa; Said Asad; Tim Wilson; Paul O'Brien; Joseph Warren; Baljeet Chawla; Vincent Li; Steve Mishler; Alfredo Zapata; Ken Brown; Robert Fortune; Kenneth Cooper; Jeff Beimer; LeRoy Brady; Susan Tellez; Robert Miller; Larry Maucher; George Wallace; Jim Delton; John Lawson; Steve Jimenez; John Carr; John Dickson; Greg H. Gentsch; Roger Hopt; George Chin; Chuck Gillick; Reza Karimvand; Daniel MacDonald; John Melanson; Lev Derzhavets; Oliver Antony; Pat Mahoney; Rod Collins; William Lyons; Bill Harmon; Dallas Hammit; David Sikes; John Harper; John Hauskins; Michael Kondelis; Paul Patane; Perry Powell; Richard Powers; Ron Casper
Cc: Mary Viparina; Sam Maroufkhani; Dan Lance; Doug Forstie; Sam Elters
Subject: Construction Std. Drawings- Slope Design Standard Revisions- C-02.20 & C-02.30

Please forward this e-mail notification to all roadway design personnel utilizing the subject Standard Drawings.

Please refer to the updated Construction Standard Drawings (Rev.date 4/06) that were issued today under separate e-mail notification. The maximum fill slope rates for Std. C-02.20 Rural Undivided and Fringe-Urban Highways and Std. C-02.30 Miscellaneous Roadways have been revised from 1 1/2:1 to 2:1. Also, the maximum cut slope rates for these two standards have been revised from 1:1 to 2:1. No slope changes have been made to Std. C-02.10 Rural Divided Highways. These revisions have been coordinated with the Materials Group Geotechnical Design.

The revisions to the slopes reflect what has been the norm for most projects. The 2:1 fill slopes provide a more stable embankment and provide an improved slope rate to establish vegetation and erosion control. The flatter 2:1 cut slope rates will also provide the same advantages. When in rock cuts, Geotechnical Design will continue to provide the maximum slope that can be used by the designer. Also, when cuts are in the higher ranges and there may be a significant project cost involved, Geotechnical Design will provide the designer the maximum slope that can be used to reduce the excavation required. The design process for establishing slope design for a project has not changed. The standard slopes simply provide the initial design slopes and the designer is to adjust the slopes for the project needs considering safety, material type, project costs, slope stablilization and other needs.

Thank you for your attention to these revisions. Please forward this e-mail to all users within your Groups and Districts. Contact your Roadway Group representative for any questions regarding these revisions.

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